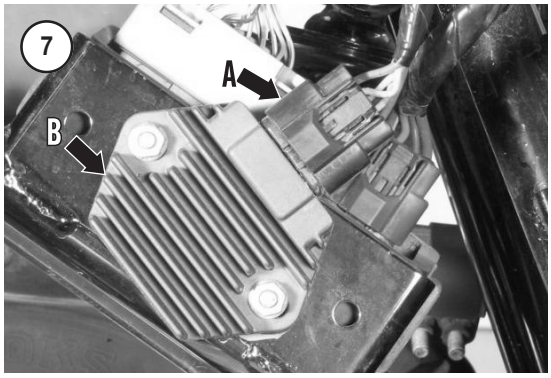
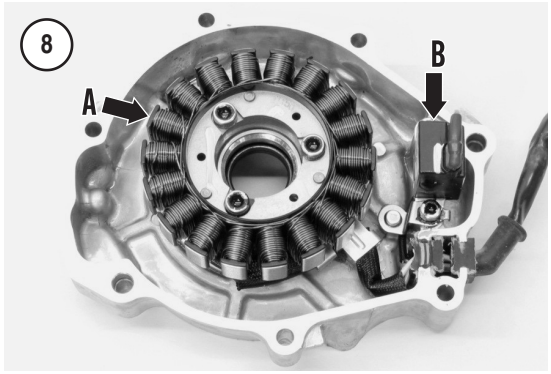



2. Check the battery charge lead as follows:
   a. Connect a voltmeter between the red and green connectors.
   b. With the ignition switch off, the voltmeter should read 13.0-13.2 volts (battery voltage).
   c. If the battery voltage is less than specified, check both wires for damage.
   d. Disconnect the voltmeter leads.
3. Check the ground wire as follows:
   a. Switch an ohmmeter to R × 1.
   b. Connect the ohmmeter between the green wire and a good engine ground.
   c. The ohmmeter should read continuity.
   d. If there is no continuity, check the green wire for damage.
4. Check the charge coil wires as follows:
   a. Switch an ohmmeter to R × 1.
   b. Measure resistance between each yellow wire.
   c. The ohmmeter should read 0.1-1.0 ohms at 69° F (20° C). An infinity reading indicates an open circuit. Test the stator coil resistance as described in this section.
   d. If the resistance reading is excessive, check for dirty or loose-fitting terminals or damaged wires.
5. If any regulator/rectifier measurement is out of specification, replace the regulator/rectifier as described in this chapter.
6. Reconnect the regulator/rectifier electrical connector (A, **Figure 7**).

### Regulator/Rectifier Removal/Installation

1. Remove the seat.
2. Disconnect the negative battery cable from the battery (**Figure 6**).
3. Disconnect the regulator/rectifier unit electrical connector (A, **Figure 7**).
4. Remove the bolts securing the regulator/rectifier (B, **Figure 7**) to the frame and remove it.
5. Install by reversing the preceding removal steps.

## ALTERNATOR



The alternator consists of the flywheel and stator coil assembly. Flywheel and stator removal and installation procedures are covered in Chapter Five.

### Flywheel Testing

The flywheel is permanently magnetized and cannot be tested except by replacing it with a known good one. The rotor can loose magnetism over time or from a sharp hit, such as dropping it onto a concrete floor. Replace the flywheel if it is defective or damaged.

### Stator Coil Resistance Test

*NOTE*
*The stator coil is also referred to as the charge coil.*

The stator coil (A, **Figure 8**) is mounted inside the alternator cover. The stator coil can be tested with the alternator cover mounted on the engine.
1. Disconnect the alternator/pulse generator connector (B, **Figure 2**).
2. Use an ohmmeter set at R × 1 and measure resistance between each yellow wire at the alternator end of the connector. **Table 1** lists the specified stator coil resistance.

3. If the resistance is as specified, the stator coil is good. If the resistance is higher than specified, the coil is damaged. Replace the stator assembly.

4. Use an ohmmeter set at R × 1 and check continuity from each yellow wire terminal in the alternator stator end of the connector and to ground. Replace the stator coil if any yellow terminal has continuity to ground. Continuity indicates a short within the stator coil winding.

*NOTE*

*Before replacing the stator assembly, check the electrical wires to and within the electrical connector for any open or poor connections.*

5. If the stator coil (A, **Figure 8**) fails either of these tests, replace it as described in *Alternator Cover* in Chapter Five.

6. Apply a dielectric grease to the stator coil connector before reconnecting it. This will help seal out moisture. Make sure the O-ring is mounted on the stator coil connector.

7. Reconnect the alternator/pulse generator connector.

## IGNITION SYSTEM

All models are equipped with a capacitor discharge ignition system.

### Servicing Precautions

1. Never disconnect any of the electrical connections while the engine is running.

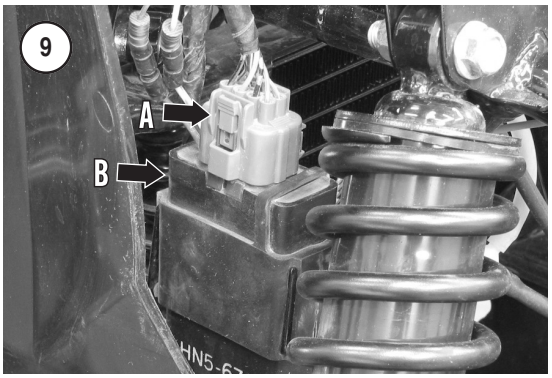
2. Apply dielectric grease to all electrical connectors before reconnecting them. This will help seal out moisture.

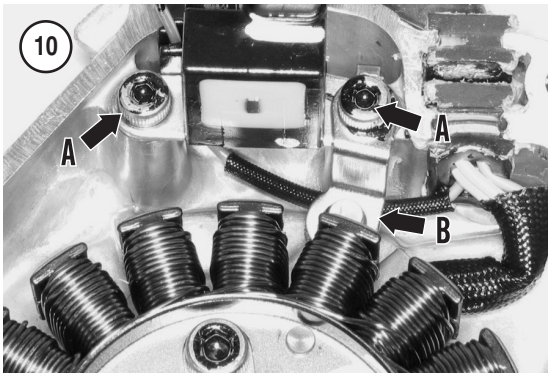
3. The electrical connectors must be free of corrosion and properly connected.

4. The ignition control module (ICM) unit is mounted in a rubber mount. If it was removed, be sure to reinstall it into its rubber mount.

### Troubleshooting

Refer to Chapter Two.




### Pulse Generator

The pulse generator is mounted inside the alternator cover (B, **Figure 8**). The pulse generator may be tested with the alternator cover mounted on the engine.

#### *Peak voltage test*

The following test checks the condition of the pulse generator, wiring and connections.

1. Detach the ICM connector (A, **Figure 9**) from the ICM (B).

2. Connect the positive voltmeter lead to the blue/yellow wire terminal in the connector.

3. Connect the negative voltmeter lead to the green/white wire terminal in the connector.

4. Turn the ignition switch on.

5. Push the starter button and operate the starter while observing the voltmeter.

6. The minimum voltage reading should be at least 0.7 volts.